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| 10/019,492 | 12/31/2001 | Mariette Ellen Boukje Bolkenbaas | BO 42433 JGD | 1399 |

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EXAMINER

DELCOTTO, GREGORY R

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1751

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/019,492

Applicant(s)

BOLKENBAAS ET AL.

Examiner

Gregory R. Del Cotto

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

1. Note that, the preliminary amendment filed 12/31/01 has been entered. Claims 1-20 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5, 7, 10-16, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damhus et al (US 5,688,757).

Damhus et al teach a bleaching detergent composition and to a washing and bleaching process. More specifically, the composition comprises a hydrogen peroxide

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source and a bleach activator. The bleach activator may be certain sugar derivatives which have bleach-activating effect both on hydrophilic stains and on hydrophobic stains. See column 1, lines 1-35. The sugar derivatives consist of a pentose or hexose sugar moiety, substituted with a long-chain acyl group and one or more short-chain acyl or aroyl groups through ester bonds, and optional substituted with a short-chain alkyl group through a glycosidic bond. The long chain fatty acyl group may be saturated, mono or poly-unsaturated, preferably C8-C18. See column 2, lines 45-69. The short-chain acyl group is preferably a C2-C6 acyl group. For reasons of economy, fructose derivatives are preferred as the sugar moiety. See column 3, lines 1-15. Many of the sugar derivatives used are effective as non-ionic surfactants and, in addition, the compositions may comprise other surfactants of the nonionic and/or anionic type. Further, the detergent compositions may comprise detergent ingredients such as chelating agents, builders, fabric softeners, enzymes, etc. See column 4, lines 1-25.

Note that, with respect to the degree of substitution, average chain length of fructan, and solubility of the acylated fructan as recited by the instant claims, the Examiner asserts that the broad teachings of Damhus et al encompass acylated fructans having the same degree of substitution, average chain length of fructan, and solubility of the acylated fructan as recited by the instant claims because Damhus et al suggest fructans comprising various substitutions and acyl groups having the same degree of substitution, average chain length of fructan, and solubility of the acylated fructan as recited by the instant claims.

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Note that, with respect to the product-by-process limitations as recited by instant claim 10, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Additionally, once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). See MPEP 2113.

Damhus et al do not specifically teach a partially acetylated fructan or method of activating bleach comprising combining with the bleach a partially acetylated fructan having the specific physical parameters as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a partially acetylated fructan and use such a fructan in a method of activating bleach comprising combining with the bleach a partially acetylated fructan having the specific physical parameters as recited by the instant claims, with a reasonable expectation of success and similar results with respect to other disclosed components, because the broad teachings of Damhus et al suggest a partially acetylated fructan and use of such a fructan in a method of activating bleach comprising

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combining with the bleach a partially acylated fructan having the specific physical parameters as recited by the instant claims.

Claims 1-5, 7-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunz et al (US 5,968,886).

Kunz et al teach the used of acylated carbohydrates selected from the group consisting of sucrose, maltose, lactose, fructose, etc., characterized in that these acylated carbohydrate compounds contain one or two carboxyl functions and are in the form of the mono- or diacid or an alkali metal salt thereof, wherein the acyl radical is selected from the group consisting of C1-C18 alkyl, tolyl, and benzyl radicals and can be identical or different, and are used as bleaching agent activators or complexing agents in detergent formulations. See Abstract. The preparation of peracetylated monosaccharide acids derivatives as taught by Kunz et al encompasses the process as recited by instant claims 8 and 9. See column 3, line 5 to column 5, line 50.

The acylated carbohydrates are excellent bleaching agent activators and at the same time also display a water solubility adequate for the washing operation. See column 3, lines 60-69. Acetylated carbohydrate based peracetylated products show an excellent bleaching action with customary bleaching agents such as sodium perborate and sodium percarbonate. See column 6, lines 35-60.

Note that, with respect to the product-by-process limitations as recited by instant claim 10, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a

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different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Additionally, once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). See MPEP 2113.

Kunz et al do not specifically teach a partially acetylated fructan, method of producing such a fructan, or method of activating bleach comprising combining with the bleach a partially acetylated fructan having the specific physical parameters as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a partially acetylated fructan and use such a fructan in a method of activating bleach comprising combining with the bleach a partially acetylated fructan having the specific physical parameters as recited by the instant claims, with a reasonable expectation of success and similar results with respect to other disclosed components, because the broad teachings of Kunz et al suggest a partially acetylated fructan and use of such a fructan in a method of activating bleach comprising combining with the bleach a partially acetylated fructan having the specific physical parameters as recited by the instant claims.

Claim 10 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ehrhardt et al (US 5,877,144).

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Ehrhardt et al teach inulin esters having particularly advantageous physical properties, including solubility and surface activity, that make them suitable for use in a wide variety of industrial and pharmaceutical applications. Inulin esters are synthesized having an average chain length of at least 6 and preferably 6 to 50, monosaccharide units linked together. Ehrhardt also teaches aqueous solutions and powders comprising the inulin esters as well as cosmetic preparations, body lotions, dishwashing detergents, laundry detergents, etc., containing such inulin esters. See column 2, lines 45-60 and claim 22.

In a particularly preferred embodiment, Ehrhardt et al teach inulin esters having a degree of substitution less than 1 and preferably less than or equal to 0.5. In inulin, the degree of substitution, which is to be regarded as an average value, represents the molar ratio of fructose glucose units to alkyl substituents. See column 3, lines 55-65.

Accordingly, the broad teaching of Ehrhardt et al anticipates the material limitation of the instant claims.

Alternatively, even if the broad teachings of Ehrhardt et al are not sufficient to anticipate the material limitations of the instant claims, it would have been nonetheless obvious to one of ordinary skill in the art to arrive at the partially acetylated fructan having the solubility value of the composition in order to provide the optimum surface active properties to the composition since Ehrhardt et al teach that the degree of substitution and monosaccharide units may be varied.

Note that, with respect to the product-by-process limitations as recited by instant claim 10, the patentability of a product does not depend on its method of production. If

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the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Additionally, once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). See MPEP 2113.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehrhardt et al (US 5,877,144).

Ehrhardt et al are relied upon as set forth above. However, Ehrhardt et al do not specifically teach a method of producing a partially acetylated fructan as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a partially acetylated fructan using a method of as recited by the instant claims, with a reasonable expectation of success, because the broad teaching of Ehrhardt et al suggest a method of formulating a partially acetylated fructan as recited by the instant claims.

Claims 1-7 and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehrhardt et al (US 5,877,144) in view of Damhus et al (5,688,757).

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Ehrhardt et al are relied upon as set forth above. However, Ehrhardt et al does not specifically teach the use of a bleaching agent as recited by the instant claim.

Damhus et al are relied upon as set forth above.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a bleaching agent in the detergent compositions taught by Ehrhardt et al, with a reasonable expectation of success, because Damhus et al teach the use of bleaching agents in combination with sugar derivatives in a variety of detergent compositions including laundry compositions and Ehrhardt et al teach the formulation of a variety of detergent compositions including laundry detergent compositions. Furthermore, bleaching agents are conventional laundry detergent components.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Remaining references cited but not relied upon are considered to be cumulative to or less pertinent than those relied upon or discussed above.

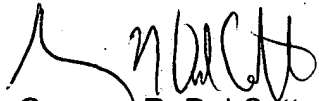
Applicant is reminded that any evidence to be presented in accordance with 37 CFR 1.131 or 1.132 should be submitted before final rejection in order to be considered timely.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory R. Del Cotto whose telephone number is (703) 308-2519. The examiner can normally be reached on Mon. thru Fri. from 8:30 AM to 6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (703) 308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Gregory R. Del Cotto
Primary Examiner
Art Unit 1751

GRD
May 19, 2003